



AZ CONP COMPOSION

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Arizona Corporation Commission

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September 1, 1998

Mr. Ray Williamson Acting Director, Utilities Division Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

RE: Arizona Independent Scheduling Administrator Implementation Plan

Dear Mr. Williamson:

Pursuant to the Arizona Corporation Commission's Order Decision Number 61071 issued on August 10, 1998, Arizona Public Service Company in conjunction with the other Arizona "Affected Utilities", hereby submit a plan to implement the Arizona Independent Scheduling Administrator Association in accordance with R14-2-1610 (C&D).

Documents within the plan include Executive Summary, Description of Processes, Principals of Arizona Retail Network Transmission Access, Bylaws, Articles of Incorporation, Schedule Administration Agreement, Financing, Timeline and Contingency Plan.

Please call me at (602) 250-3392 if you have any questions.

Sincerely,

Donald G. Robinson

Director

Pricing, Regulation and Planning

DGR/JRS/pb

Enclosure

¹ Affected Utilities are Arizona Electric Power Cooperative, Arizona Public Service Company, Citizens Utilities Company, and Tucson Electric Power Company

ACC Filing for Arizona Independent Scheduling Administrator

Executive Summary

Description of Processes

Principals of Arizona Retail Network Transmission Access

Articles of Incorporation

Bylaws

Schedule Administration Agreement

Financing

Timeline

Contingency Plan

Executive Summary

Functional Overview

The Arizona Independent Scheduling Administrator (AISA) is under development in order to provide non-discriminatory retail access and to facilitate a robust and efficient electricity market in Arizona per ACC Retail Electric Competition Rule Section R14-2-1610 (C and D). The AISA will implement and oversee the non-discriminatory application of protocols to ensure statewide consistency for transmission access. These protocols include, but are not limited to, protocols for determining transmission system transfer capabilities, committed uses of the transmission system, available transfer capabilities, and Must-Run Generating Units. The AISA will provide dispute resolution processes that enable market participants to expeditiously resolve claims of discriminatory treatment in the reservation, scheduling, use and curtailment of transmission services.

Staffing

The AISA will initially have ten staff positions consisting of a Director, Assistant Director, One Engineer/Contract Specialist, One Administrative Support Person, and Six Analysts.

Financing

The estimated budget for the implementation of the AISA is \$1,475k capital start up costs and \$2,548k annual O&M costs for the first two years and \$1,648k for years three through five. The affected utilities have agreed to initial funding of capital start up costs and \$900k of the first two years O&M is for amortized repayment of the initial funding capital to the affected utilities. All costs will be recovered by a transmission surcharge.

Implementation

The AISA will be sufficiently staffed to implement functionality January 1, 1999. Full implementation of software to allow electronic transfer of scheduling data and visibility to existing OASIS sites may be delayed but should be fully implemented early in 1999.

Description of the Day Ahead Process for SC's, the ISA and TP's and CAO's Functions

Under traditional load serving situations the Control Area's (CA) marketing function is responsible for forecasting native load requirements. Individual generating plants are dispatched in the most economical manner to serve the total system load with due consideration for system reliability and safety. Short term transmission loading problems are managed by the Control Area Operator (CAO) by re-dispatching generating units inside the Control Area or cutting transactions with adjacent control areas until the transmission loading problem is resolved. All the generating resources within the Control Area are available to the Control Area Operator to provide required ancillary services.

With the advent of direct access to other generating parties outside or inside the Control Area boundary, a new entity, the Scheduling Coordinator (SC), enters the market. Constructed similarly to the California experimental Scheduling Coordinator, the Arizona Direct Access Scheduling Coordinator will perform the follow duties:

Scheduling Coordinators:

- 1. Forecast load requirements for day-ahead
 - ⇒ Submit load forecast to the Control Area where the load resides for inclusion in the CA's load forecast of total system requirements, including losses and ancillary services.
- 2. Acquires necessary transmission
 - ⇒ Submits network transmission requirements to CA's and/or Point to Point transmission path reservations by ISA tariff time deadline.
- 3. Arranges for appropriate ancillary services
 - ⇒ Submits required information to CA about ancillary services provider or has ancillary services required for transmission and load services provided by CA's
- 4. Submits balanced schedules (load + loss = generation) to ISA & CAO simultaneously and provides necessary NERC/WSCC Tags
 - \Rightarrow Self explanatory

With choice in electric service providers by the existing customers of the control area, market participants felt that in order to have independence in the application of transmission access an entity needed to exist that would not favor any one particular Scheduling Coordinator. Thus the idea for the Independent Scheduling Administrator (ISA) was discussed and debated. The ISA is expected to be a precursor to any ISO activities and if implemented correctly would be able to be incorporated into the ISO. As envisioned the duties/functions of the ISA would be as follows:

ISA:

- 1. Responsible for calculations of ATC (implementation of the Western Interconnection ATC document and ISA Committed Users Work Group Document)
 - ⇒ All necessary information from the SC's and CA/Transmission Providers (TP) will be available to the ISA computer system to allow it to calculate the ATC on posted paths.
- 2. Operate over-arching state-wide OASIS
 - ⇒ Monitor the computer system that gleans information from the existing state OASIS' and assist in customers' use of the web based system for making transmission reservations.
- 3. Receives copy of transmission schedule and updates of ATC after receipt of confirmed schedule
 - ⇒ The process by which the SC's will submit their energy schedules will simultaneously send to the ISA and the CAO/TP for use in schedule check out duties of the Control Areas. Feedback from the check out process will allow the schedule to be used in recalculating the ATC to determine if additional capacity was made available by the schedule being less than the reservation.
- 4. Receives additional requests for transmission and updates of ATC
 - ⇒ Due to the possibility of additional ATC from the above action, the ISA may receive additional schedules to complement additional reservations.
- 5. Monitor release of ATC
 - ⇒ ISA will monitor the scheduling of transmission reservations to determine if a party is habitually requesting transmission and then not submitting a schedule for that reservation thus denying other of the transmission in advance of the hourly market.

The entire process for the Transmission Providers and Control Area Operators changes with the inclusion of the ISA. The functions that the Transmission Providers and Control Area Operators will be performing are:

TP/CA:

- 1. Process, review SC's schedules, submit existing contract schedules to ISA, submit generation participants schedules to ISA
 - ⇒ Perform the normal scheduling functions of the Control Area with information routed to the ISA for complete ATC calculations.
- 2. Posts ancillary services to ISA's OASIS
 - ⇒ Those ancillary services in support of transmission will be posted as available from the Control Area/Transmission Provider.
- 3. Processes additional schedules from transmission reservations updates
 - Acknowledge and verify additional schedules and transmit to ISA for updating of the ATC due to additional transmission reservations.

<u>Description of the Current Day Process</u> for the SC's, ISA, TP's and CAO's Functions

The current day process will involve basic implementation of the day ahead processes allowing for additional responsibilities for all parties to help develop and expand the market for transmission and changes for variations in loads.

The functions of the Scheduling Coordinators in this process within the current day will be:

- 1. Process additional schedules submitted to Independent Scheduling Administrator (ISA) & Control Area Operator (CAO) with North American Reliability Council (NERC) tags
 - ⇒ Scheduling Coordinator (SC) requests approval of schedule for same day service
 - ⇒ SC notifies ISA/CAO and submits schedule with NERC tag
- 2. Responds to real-time contingencies and curtailments as directed by ISA/Security Coordinator/CAO
 - ⇒ SC must change schedules as directed by ISA/Security Coordinator/CAO, therefore
 - ⇒ ISA should review to insure that schedules were cut on a non-discriminatory basis unless Security Coordinator/CAO has justifiable reasons (i.e. system jeopardy)

The current day process for the ISA will be very similar to the day ahead process in that it will process requests for transmission for same day usage and monitor the OASIS site for violation/abuses. Although in the WSCC the role of the Security Coordinator has not been implemented, the coordination of data will need to include the ISA when that time arrives. The ISA's functions within this process should be:

- 1. Verifies that additional requests for transmission are viable given the ATC.
- 2. ISA/CAO must post to OASIS all curtailment information
- 3. Reviews posted curtailment information
 - ⇒ Security Coordinator notifies CAO / ISA of need for curtailment
 - ⇒ ISA notifies SC of all curtailment information and posts on OASIS
 - ⇒ ISA ensures that application of curtailment protocols are non-discriminatory
- 4. ISA provides appeals process for transmission use denials and curtailment orders
 - ⇒ ISA facilitates Alternative Dispute Resolution (ADR) process.
 - ⇒ SC, CAO, Security Coordinator shall have access to the ADR process for disputed scheduling denials and disputed curtailment orders.
- 5. Facilitates congestion protocols to accommodate current day schedules (interface with Security Coordinator/CAO)
- 6. Ensures that application of scheduling protocols are non-discriminatory

The Control Area Operator and the Transmission Provider will involve themselves in the current day process by:

- 1. Managing real-time operations and helping implement Security Coordinators curtailment and contingency directives
 - ⇒ Practice Codes of Conduct
 - ⇒ No preference to affiliate merchant function in curtailment or scheduling priority
- 2. Processing current day schedules from SC / ISA reservation additions and updates
 - ⇒ Verify ancillary services needed for the new or updated request
 - ⇒ Receive and implement ISA/Security Coordinator congestion protocols to accommodate current day schedules
- 3. CAO approves or rejects the schedule based upon current system dynamics
- 4. CAO implements real-time congestion management protocols
- 5. CAO notifies ISA/SC of status of ongoing requests and actions

<u>Description of the Future Day Process</u> for the ISA, TP's and CAO's Functions

The ISA will participate in:

- ⇒ Operating studies used to determine TTC
- ⇒ Transmission maintenance schedule determination
- ⇒ Control Area Operator TTC determination
- 1. The reliability limit of a transmission path at any point in time is represented by its Total Transfer Capability (TTC), an amount which cannot exceed the path rating. For any given hour, the TTC is the maximum amount of power that may be scheduled across a transmission path. Consequently, determining TTC sets the upper boundary on the commercial uses of the transmission system. It follows that accuracy and consistency of TTC determination across transmission owners is critical for the operation of a robust competitive market for generation. ISA participation is intended to promote consistency in TTC determination across Arizona.
- 2. In the Western Interconnection, TTC determination must conform to procedures and criteria established by WSCC. Due to the complexities inherent in an interconnected grid, TTC determination requires that detailed studies be undertaken, including analyses of different system operating conditions that may require TTC adjustments.
- 3. Ideally, these studies would be conducted by an independent third party, such as an ISO, with input from affected stakeholders. The ISA, however, is not anticipated to have the staffing for such a large responsibility, at least not during its initial period. Instead, Arizona transmission owners will include ISA personnel throughout the TTC determination process. ISA personnel will be participants in the operating studies used to determine TTC, and will consult with control area operators regarding the TTC determination for their respective facilities. The ISA should play the role of ombudsman, promoting consistency in TTC determination across transmission owners and advocating the establishment of the maximum TTC levels consistent with meeting WSCC and NERC reliability criteria.
- 4. The ISA will also participate in the coordination of transmission maintenance schedules. Transmission maintenance will impact commerce, and it will be necessary to establish a notification procedure to inform market participants far enough in advance of scheduled maintenance to allow the participants to adjust. The ISA will be the vehicle for disseminating this information. [In addition, if the ISA believes the aggregation of proposed maintenance schedule would have an unduly disruptive impact on use of system, the ISA should encourage some transmission maintenance to be rescheduled. If no adverse impact on reliability.]

The ISA will also:

Define, Review and Oversight of Committed Uses (Implementation of Western Interconnection ATC document)

- 1. For a given hour, the amount of transmission capacity on a path that is available for sale to the marketplace is the Available Transfer Capability (ATC). ATC is equal to TTC minus Committed Uses. Thus, a Committed Use represents transmission capacity that is not available (or no longer available) for sale to the marketplace. Consequently, the amount of transmission capacity that is classified as a Committed Use has an impact on the commercial use to the transmission system. It follows that accuracy and consistency of Committed Use determination across transmission owners is critical for the operation of a robust competitive market for generation. ISA definition, review and oversight of Committed Uses is intended to promote consistency in the marketplace across Arizona.
 - ⇒ There are six categories of Committed Uses recognized in the Western Interconnection:
 - ⇒ Native Load Uses (including Capacity Benefit Margin)[CU1]
 - ⇒ Prudent Reserves [CU2]
 - ⇒ Existing Commitments for purchases/exchanges/deliveries/sales [CU3]
 - ⇒ Existing Commitments for transmission service [CU4]
 - ⇒ Other Pending Potential Uses of transfer capability, and
 - ⇒ Transmission Reliability Margin (TRM)
- 2. In nearly all these categories, a certain amount of judgment and use of "reasonable" assumptions is required for Committed Use determination. For example, determining CU1 requires forecasting native load transmission requirements and future load growth. In addition, CU1 includes the transmission capacity necessary to deliver ancillary services, as well as other reliability-related uses required for native load. An inherent hazard in CU1 determination is that a transmission owner's merchant affiliate may seek to claim an unreasonable portion of transmission capacity as a Committed Use. The ISA should oversee the native load committed use treatments to ensure that they are reasonable and consistent across the Arizona market place.

- Other areas of Committed Use determination requiring judgment, and therefore ISA oversight, include determining Prudent Reserves [CU2], interpreting Existing Commitments [CU3&4], establishing what constitutes a "good faith request" for service (and is thereby a Pending Use) [CU5], and determining an appropriate level of Transmission Reliability Margin [TRM].
- 4. To best carry out these responsibilities, the ISA should preside over a Committed Use Working Group formed to determine the protocols necessary for consistent Committed Use determination across the market place in Arizona. Subsequently, the ISA should conduct spot checks of Committed Uses to test for compliance. The ISA should also provide an ADR process for Committed Use disputes.

Description of the After the Fact Process for the SC's, ISA, TP's and CAO's Functions

Within the process of After the Fact accounting and reconciliation the duties of the Scheduling Coordinator will be:

1. The SC's are required to participate in the checkout/settlement process and provide meter data that is used to settle their use of the transmission system and any ancillary services that were necessary to support the sale to the customers.

The ISA will also participate in the settlement process and facilitate the ADR process that is required at this stage due to settlement issues:

- 1. If a dispute is not resolved by Fast Track ADR by the Director the dispute proceeds to an expedited ADR process. A panel of 3 will be available at the call of the Director for a decision on the next business day. The panel shall consist of one member from the transmission provider, one from the system user involved in the dispute, both of whom shall have been designated in advance. The third shall be from an independent standing panel. The ADR panel's decision will stand pending an appeal either to the courts or FERC, whichever is appropriate. A final decision of the panel, the court, or FERC shall establish a precedent.
- 2. The ISA will participate in after the fact checkouts as needed to facilitate CA and customer settlements by providing data.

The TP's and CAO's will be responsible for the checkout/settlement process just as today due to the requirement of being a CAO with the WSCC.

ARIZONA RETAIL NETWORK TRANSMISSION ACCESS

Principles

- 1. Retail Network Transmission Service can be used only to serve designated retail network load and cannot be converted to other types of transmission service such as Point to Point transmission service.
- 2. Allocation of Retail Network Transmission to Scheduling Coordinators ("SC's") is based on the ratio of each SC's share of retail network load to the total retail network load. SC's may effectively trade allocation of specific paths through the coordinated redesignation of network resources within the requirement that each SC's loads and resources remain balanced.
- 3. By October 1 of each year the total Network Transmission capacity requirements needed to serve retail transmission customers of a Transmission Owner ("TO") will be determined on a monthly basis for the next calendar year and on an annual basis for the next ten years. The determination of Network Transmission capacity requirements will be based on the TO's forecast for total retail network load and the ESP/SC's projections for network resources. These Network Capacity requirements will be used to update long term ATC on the OASIS. The AISA will facilitate this process. No allocation for individual SC's is made at this time.
- 4. On the 15th of each month the peak total retail network load for each SC will be determined for each day of the following month. The determination will be made by one of the following methods:
 - a) The TO uses DASR's and customer information system data to determine which customers each SC will schedule for and to forecast the total customer load for each SC.
 - b) The SC's will submit their load forecast to the TO who in turn adjusts the load forecasts if necessary to ensure that the total of all SC's load forecasts are consistent with the TO's total load forecast.
 - c) Some combination of a) and b).

The following month's total retail Network Transmission capacity requirement will then be allocated by path to each SC based on the ratio of each SC's share of retail network load to the total retail network load for each day of the month. The results of this allocation and any ATC available on paths will be communicated to all SC's on the 15th of each month.

The SC's will have until the 21st of the month to effectively trade amongst themselves allocations of specific paths, or make use of available ATC, through the coordinated redesignation of network resources. On the 21st of the month the SC's will submit peak balanced load and resource forecasts for each day of the following month to the TO. The TO will map all submitted load and resource forecasts into path reservations with the expectation that the re-designation of network resources will not result in any path's total reservation (retail network plus all other committed uses) exceeding that path's TTC.

As a backstop in the case that one or more path's total reservation exceeds it's TTC, the TO will adjust the SC's designated resources in order to reduce all path total reservations to the path TTC. These adjustments will be made pro-rata on load ratio and will not result in any SC's allocation on any path reduced below its original pro rata allocation made on the 15th day of the month.

- 5. Each day, all SC's submit hourly balanced load and resource schedules for the next day and hourly balanced load and resource forecasts for the following six days. These schedules and forecasts may include the coordinated re-designation of network resources allowing SC's to effectively trade allocation of specific paths. The TO will adjust the SC's designated resources pro-rata on load ratio to reduce all path total reservations to the path TTC if necessary. These schedules and forecasts will be used to update hourly ATC on the OASIS for the next seven days.
- 6. Network resources can be designated as any generation unit interconnected with the TO or at any interconnection point with another TO. Network load is designated in any load zone defined by the TO.
- 7. Emergency re-dispatch necessary to relieve an overloaded transmission path will be allocated to the SC's using that path based pro rata on the path schedules.

ARTICLES OF INCORPORATION OF

ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR ASSOCIATION

The undersigned, having associated ourselves together for the purpose of forming a non-profit corporation under and by virtue of the laws of the State of Arizona, do hereby adopt the following original Articles of Incorporation:

I.

Name and Period of Duration

The name of the corporation is ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR ASSOCIATION (the "Corporation"). The Corporation shall exist for a period of five (5) years from the date of its incorporation unless dissolved at an earlier date.

П.

Incorporators

The names and addresses of the incorporators are:

Arizona Public Service Company 400 North 5th Street Phoenix, Arizona 85004 Tucson Electric Power Company 3950 East Irvington Road Tucson, Arizona 85714

Ш.

Purpose and Character of Initial Affairs

The purpose for which this Corporation is organized is exclusively for purposes within the meaning of Section 501(c) (6) of the Internal Revenue Code of 1986. The Corporation initially intends to serve as the scheduling administrator on behalf of the owners and users of the electric transmission grid within the State of Arizona ("the Grid").

The character of the affairs which the Corporation intends to conduct is to facilitate open, non-discriminatory transmission access on the Grid.

IV.

Board of Directors

The initial Board of Directors shall consist of ten (10) directors. The names and addresses of those persons who shall serve as directors until the first annual election of directors or until their successors are elected and qualify are:

Address <u>Name</u> Tucson Electric Power Company Mike Raezer P.O. Box 711 3950 East Irvington Road (SC202) Tucson, AZ 85702 Arizona Public Service Company Cary Deise P.O. Box 53999, Station 2260 502 South Third Avenue Phoenix, AZ 85072-3999 Suite 100F Leroy Michael 4359 East Camelback Road Phoenix, AZ 85018 **RMI** Alan Propper 302 North First Avenue, Suite 810 Phoenix, AZ 85003 Tabors Carmanis & Associates Carl Imparato 1205 Garfield Avenue Albany, CA 94706

Tom Delaney

Enron Corp.

One World Trade Center

121 S.W. Salmon St., Suite 1100

Portland, OR 97204

Larry Huff
Arizona Electric Power Cooperative
P.O. Box 670
Benson, AZ 85602

Barry Huddleston

Dynegy, Inc.
1000 Louisiana Street, Suite 5800
Houston, TX 77002

Kevin Higgins

Energy Strategies, Inc.
39 Market Street, Suite 200
Salt Lake City, UT 84101

Gordon Fox

Residential Utility Consumer Office
2828 North Central, Suite 1200
Phoenix, AZ 85004

V.

Attendance at Board Meetings

Any Member's authorized representative may attend any meeting of the Member Chairs or the Board and any committee or subcommittee of either, except meetings of the Board in executive session held solely for the purpose of (i) considering personnel matters, or (ii) consulting with the Board's attorneys regarding matters for which the Board's attorney-client privilege would, in the Board's attorneys' opinion, be jeopardized by Member attendance. The Board shall establish procedures for the Director to provide Members reasonable notice of all such meeting.

VI.

Limitation on Director Liability

To the fullest extent that the law of the State of Arizona, as it now exists or as it may hereafter be amended, permits the elimination of or limitation on the liability of directors, no director of the corporation shall be liable for monetary damages for any action taken or for any failure to take action. Any repeal or modification of this Article shall be prospective only and shall not adversely affect any limitation on the personal liability of a director of the Corporation existing at the time of such repeal or modification.

VII.

Exempt Organization

This Corporation is not organized for pecuniary profit nor organized to engage in an activity ordinarily carried on for profit and it shall not have the power or authority to issue shares of stock or declare or pay dividends. Except to the extent permitted by law, no part of the net earnings or assets of the Corporation shall inure to the benefit of, or be distributable to, its directors, officers, Members or other private persons, except that the Corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in these Articles of Incorporation.

Notwithstanding any other provision of these Articles, the Corporation shall not conduct or carry on any activities not permitted to be conducted or carried on by an organization exempt under Section 501(c)(6) of the Internal Revenue Code of 1986 (or the corresponding provision of any future United States Internal Revenue law) and its regulations (as they now exist or may hereafter be amended).

VIII.

Distribution of Assets

In the event of dissolution or final liquidation of the Corporation, none of the property or the Corporation nor any proceeds thereof shall be distributed or divided among any of the directors, officers, or Members of the Corporation or inure to the benefit of any other private person.

After the liabilities and obligations of the corporation have been paid, satisfied, or discharged, or adequate provision made therefore, all remaining property and assets of the Corporation shall be distributed to one or more organizations that have established their tax exempt status under Section 501(a) of the Internal Revenue Code of 1986, or any amendment thereof or any governmental agency operated for the same purpose as the Corporation, as designated by the Board of Directors.

IX.

Amendment of Bylaws

The Bylaws of the Corporation shall be adopted by the initial Board of Directors of the Corporation and may thereafter be amended by an affirmative vote of two-thirds of the Board of Directors, except that the power to amend the Bylaws providing for Membership Class composition and powers and procedures relating to the nomination and election of directors shall be reserved exclusively to the Members in accordance with the voting requirements set forth in the Bylaws.

X.

Statutory Agent

The name and address of the initial statutory agent of the Corporation is Herbert I. Zinn, 400 North 5th Street, Station 9820, Phoenix, AZ 85004.

IN WITNESS WHEREOF, the undersigned hereunto affix their signatures this _____ day of August 1998.

| CARY DEISE, Incorporator |
|---------------------------|
| · |
| MIKE RAEZER, Incorporator |
| |

Arizona Corporation Commission
Post Office Box 6019
Phoenix, Arizona 85005

Re: ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR ASSOCIATION

The undersigned, having been designated to serve as Statutory Agent for the above corporation, hereby consents to serve in such capacity until resignation or removal is submitted in accordance with the Arizona Revised Statutes.

| Herbert I. Zinn | | |
|-----------------|-------------|----|
| | Dated:, 199 | 98 |

BY-LAWS

ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR ASSOCIATION

September 1, 1998

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BY-LAWS

ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR ASSOCIATION

1. Preamble:

The Arizona Independent Scheduling Administrator Association (AISA) is a voluntary, non-profit Arizona corporation intended to become operational by January 1, 1999, as an interim electric transmission scheduling administrator and central Open Access Same-Time Information System (OASIS) provider formed to facilitate the operation of Arizona's competitive electric retail market until a regional independent system operator, currently known as Desert STAR, becomes operational.

AISA initially intends to serve as the scheduling administrator on behalf of the providers and users of the Interconnected Transmission System within the State of Arizona.

The character of the affairs which AISA intends to conduct is to facilitate open, non-discriminatory transmission access on the Interconnected Transmission System.

2. Definitions:

- 2.1. ADR: The alternative disputes resolution procedures established in Section 6.
- 2.2. Affiliate: Another person which controls, is controlled by, or under common control with, a person. Control (including the terms "controlling," "controlled by" and "under common control with") includes but is not limited to, the possession directly or indirectly and whether acting alone or in conjunction with others, of the authority to direct or cause the direction of the management or policies of a company. A voting interest of ten percent or more creates a rebuttable presumption of control. Notwithstanding the foregoing definition, electric distribution cooperatives that control a generation and transmission cooperative are not Affiliates of the generation and transmission cooperative or of each other for purposes of these By-laws. Furthermore, an entity controlled by or operating as a unit, agency, or subdivision of a local, state, or federal government shall not be considered an Affiliate of any other entity controlled by or operating as a unit, agency, or subdivision of the local, state, or federal government.
- 2.3. ATC: That amount of transmission capability, which has not been committed for use, and is available to provide transmission service over the Interconnected Transmission System.
- 2.4. Board: AISA's Board of Directors, individually and collectively, as described in Section 4.
- 2.5. FERC: The Federal Energy Regulatory Commission or its regulatory successor.

- 2.6. Interconnected Transmission System: That portion of each transmitting utility Member's transmission system which is utilized for bulk power transactions within the State of Arizona.
- 2.7. Member: Any entity which is eligible for membership as provided in Section 3.2.1 and is current in the payment of dues as provided in Section 3.2.2.
- 2.8. Member Class(es): Those Member Classes established in Section 3.2.3.
- 2.9. Protocols Manual: A manual to be created at the earliest practicable date by the Director in cooperation with the Members and approved by the Board, which, while recognizing contractual commitments, shall lend greater precision to the procedures used for the calculation of TTC, committed uses, and ATC, to reservation procedures, and to the determination of priorities for the use of constrained paths on the Interconnected Transmission System.
- 2.10. TTC: The total transfer capability of a transmission path at any point in time is its reliability limit, an amount which cannot exceed the path rating.
- **2.11.** WSCC: The Western Systems Coordinating Council.

3. Members:

3.1. Powers:

The Members will have the powers specified in these By-laws, including the power to amend those portions of these Bylaws providing for Member Class composition and powers and providing for the nomination and election of members of the Board.

3.2. Member Qualifications and Classes:

- 3.2.1. General Qualifications for Membership: To be eligible to become a Member of AISA an entity must satisfy one of the following standards:
 - 3.2.1.1. Make transmission facilities available for the delivery of power and energy to consumers within the State of Arizona;
 - 3.2.1.2. Be qualified to use the transmission system pursuant to FERC Order 888-A; or
 - 3.2.1.3. Belong to a retail customer class or an organization representing customers in a retail customer class within Arizona.

- 3.2.2. Dues: By December 15 of each year, AISA shall mail to each Member an annual statement for dues for the following year in the amount of Two Hundred Fifty Dollars (\$250), payable on or before January 2 of the following year. New Members shall pay their annual dues prorated to the date on which they join. In order to be eligible to vote in any election or on any issue that comes before the Members or to participate in any activities of AISA, a Member shall be current in the payment of its dues. The Board shall have the power to waive the annual dues of an organization upon a showing of financial hardship.
- 3.2.3. Member Classes: A Member may choose one Member Class to which it will belong. There shall be five voting classes of Members and one non-voting or ex-officio class. The five Member Classes are:
 - Transmission facilities providers: Entities that own or control an interest in the Interconnected Transmission System and provide transmission service within the State of Arizona using AISA's OASIS.
 - Local load serving entities: Entities that schedule to or serve loads, including municipally-owned utilities, distribution co-operatives, and other local distribution service providers providing services within Arizona.
 - Aggregators: Entities that aggregate end-use loads and/or generating resources to serve end-use customers within Arizona.
 - Independent generators and wholesale power marketers: Entities, including independent power producers and exempt wholesale generators, that own generating facilities but do not own any other utility facilities or perform any other utility functions, except for transmission facilities needed to deliver to the Interconnected Transmission System; or entities which are wholesale power marketers as defined by FERC, or state agencies which sell electric energy as defined by the Federal Power Act.
 - End users: Entities that are end use customers within Arizona or their representatives.

The ex officio class shall consist of representatives from Arizona state agencies that have an interest in the operations of AISA. Representatives of this class shall not be required to pay annual dues.

3.2.4. Choosing a Member Class and Minimum Number of Class Members: While an entity may choose the Member Class to which it belongs, it may not belong to more than one such class. It may terminate its participation in such Member Class and choose another Member Class within the first twelve months of becoming a Member, but shall thereafter remain with its last chosen Member Class.

All Member Classes, except the transmission facilities providers class, must have at least five Members, excluding Affiliates, to be empowered and become an active Member Class.

- 3.2.5. Affiliate Rules: An Affiliate of a Member which satisfies the membership qualifications may also become a Member provided:
 - 3.2.5.1. The Member must disclose all of its Affiliates which hold AISA membership and the classes to which the affiliates belong.
 - 3.2.5.2. Only one Affiliate from a group of related Affiliates may elect to associate itself with a particular Member Class, and only one representative of a group of related Affiliates shall be qualified to serve on the Board.

3.3. First and Second Special Meetings of Members:

- 3.3.1 First Special Meeting: At a special meeting called for such purposes by the initial Board, the Member Classes shall organize themselves and elect their respective Chairs, committee representatives, and shall nominate Board candidates within thirty (30) days after AISA is established as a non-profit corporation. Such Chairs and committee representatives shall serve until the next annual meeting.
- 3.3.2 Second Special Meeting: The first permanent Board shall be elected at a second special meeting of the Members to be held within thirty (30) days after slates of candidates have been established by the Member Classes.

3.4. Annual Meeting of Members:

The annual meeting of Members for the election of Class Chairs, Members Chairman, and class representatives to the Board shall be held on the third Tuesday in September of each year. The failure to conduct such a meeting shall not work a forfeiture of the Articles of Incorporation.

3.5. Member Class Organization:

3.5.1. Class Chairs; At the annual meeting of Members, each Member Class by majority vote shall select its Class Chair and Member committees. The Class Chair or his/her authorized alternate will attend and preside at all Class meetings and all Class committee meetings.

- 3.5.2. Members Chairman: The Class Chairs, by majority vote, shall elect annually one of their number as the Members Chairman for the year. The Members Chairman will preside at the annual meeting of Members and all other joint meetings of the Member Classes.
- 3.5.3. Member Class Committees: The Class Chairs may constitute, empower, and dissolve ad hoc committees from time to time to perform specific tasks within specified times. Upon completion of their assigned tasks, such committees shall dissolve.
- 3.5.4. Member Meetings Notices: The Director of the AISA will provide advance notice of the annual meeting of the Members, all other joint meetings of all the Member Classes, and all Member Class meetings and Member Class committee meetings. The Members Chairman will provide for keeping the minutes of Members, Member Class and Member committee meetings and all other official records of the Members. Within five (5) business days after any vote taken by all Members, a Member Class, or a Member committee, the Director will notify all Members of the results.
- 3.5.5. Quorum: All business of the Members, by all Member Classes jointly, each Member Class separately and by all Member Class committees, shall be conducted at meetings called by advance notice to all Class Members. No business shall be conducted at any meeting unless a quorum is present. A majority of all Members that are part of any body which is making a decision shall constitute a quorum. Such Members shall be present by a representative or alternate representative designated in advance of such meeting in a letter directed and delivered to the Director.
- 3.5.6. Member Class Voting; Tie Breaker: The Member Class and Member Class committee decisions shall be by voting in accord with the following rules:
 - 3.5.6.1. In the selection of Class Chairs and voting on other Class business, with the exception of certain decisions described in Section 3.5.6.2, the decisions shall be by a majority vote of the quorum. The voting Members in each Member Class shall elect two Board members from its Member Class by a majority vote.
 - 3.5.6.2. Votes on amendments to the Bylaws, as provided in Section 3.1, shall be conducted by a two-tier voting process. The Members in each Class shall cast their votes. Following this vote, each of the member Class Chairs shall cast his/her vote for or against the proposed amendment as determined by his/her Member Class. Both votes in the two-tier system must be affirmatively supported by two-thirds in order for a proposed amendment to become effective.

3.6 Resignation, Suspension, or Termination of Membership:

- 3.6.1. Resignation: A Member may resign at any time by giving fifteen (15) days' written notice to the Director.
- 3.6.2. Suspension, or Termination: Any time that the Board by resolution finds that a Member has (i) intentionally or repeatedly violated any By-law, or (ii) materially breached or intentionally violated any FERC order or arbitration decision issued pursuant to these By-laws, or (iii) willfully obstructed any lawful purpose or activity of AISA, the Board, at its sole discretion, may suspend or terminate that membership. The affected Member shall be given sixty (60) days' advance written notice of any Board meeting at which suspension or termination action against that Member is anticipated and such Member shall have the right to be present and to present information concerning the suspension or termination action to the Board. Upon suspension or termination of membership, the Member's voting rights and all other rights and privileges of membership shall automatically cease. Notice of suspension or termination shall not change the Member's obligation under any contract, FERC order, decision of arbitration, or request for transmission service made to or by the suspended or terminated Member in effect or pending as of the effective date of suspension or termination, unless otherwise agreed by any affected Member. A Member subjected to a suspension or termination notice may elect to arbitrate such action pursuant to Section 6.3.

3.7. Restrictions on Resumption of Membership:

A Member which has withdrawn or been suspended from membership may not apply for reinstatement for a period of one (1) year unless otherwise determined by action of the Board. A Member which has been terminated from membership may not apply for reinstatement to membership for a period of time stated in the Board resolution of termination, not to exceed two (2) years, except for good cause.

4. The Board:

4.1. Powers:

4.1.1. The Board will have the power to govern the business and affairs of AISA, establish its policy and direction, hire the Director and an Assistant Director designated to act in the absence of the Director, terminate the employment of such persons with or without cause, and amend the Bylaws. Amendments of the Bylaws with respect to the Member Classes, Members powers, or compensation for Board members shall require approval as provided in Section 3.5.6.2..

4.1.2. The interim Board, named in the Articles of Incorporation, shall have no powers other than to call the special meetings of the Members for the purpose described in Section 3.3.

4.2. Qualifications:

- 4.2.1. General Qualifications: All candidates for the Board shall be (i) knowledgeable in transmission system operations and (ii) knowledgeable in one or more areas of business, finance, organization, government regulation, or other matters particularly affecting the activities of AISA.
- **4.2.2.** Qualifications of Voting Members: Representatives of Members may be candidates for the Board.
- 4.2.3. Specific Qualifications for the Representative Board: Potential candidates for the Board are subject to disqualification if unwilling to disclose their financial interests in any Member or Affiliate.

4.3. Composition:

The Board will consist of eleven voting Members, including two representatives from each of the five Member Classes, and the Director.

4.4. Election Process and Term of Office:

- 4.4.1. Election Process: Each Member Class shall be represented by two Board members. At the annual meeting, voting Members for each Member Class shall nominate candidates for Board positions to be filled by that Member Class. Balloting will be held as required to produce a majority vote of the quorum present for one person to fill each vacancy.
- 4.4.2. Term of Office: The Board members' term of office shall be two years, except each Member Class shall elect one of its initial Board members to a one-year term.

4.5. Organization, Meetings, and Decision Process:

4.5.1 Organization: The Board shall select the Director and Assistant Director prescribed by the Bylaws and shall appoint such Board committees as it deems necessary to carry out its business affairs. The Director shall serve as the Chair of the Board and shall be available for all Board Committee meetings. The Board shall elect an Assistant Chair from among its members to serve in the absence of the Director.

4.5.2 Meetings and Quorum:

- 4.5.2.1 All business of the Board, election of the Board's officers, and appointment of Board committees shall occur at the Board meetings, notice of which has been provided by the Director to all of the Board and all Members. Regular meetings of the Board shall be held on the third Wednesday in January, May, and September. Special meetings may be held at the call of the Director or any three (3) Board members upon thirty (30) days advance written notice to each Board member and all Members.
- 4.5.2.2 No business shall be conducted by the Board or any committee thereof unless two-thirds of the Board or of any committee thereof is present.
- 4.5.2.3 Any meeting of the Board or any committee thereof may be held by conference telephone or similar communications equipment as permitted by law in which case any required notice of such meeting may generally describe the arrangements (rather than the place) for the holding thereof, and all other provisions herein contained or referred to will apply to such meeting as though it were physically held at a single place.
- 4.5.3 Board and Board Committee Decisions: A decision of the Board or Board committee shall require an affirmative vote of two-thirds of the Board members or two-thirds of Board committee members present, whichever is applicable. No proxy voting shall be allowed.

4.6. Resignations and Vacancies:

- 4.6.1. Resignation: Any Board member, committee member, officer, or employee may resign from his or her office or position at any time by written notice in accordance with Arizona Revised Statutes Sections 10-807 and 10-843. The acceptance of a resignation will not be required to make it effective.
- 4.6.2. Vacancies: If the office or position of any Board member, committee member or officer becomes vacant by reason of his or her death, resignation, disqualification, removal or otherwise, the Board may choose a successor to hold office until a successor is duly elected by his or her Member Class.

5. The Director and Assistant Director:

The Director will be the chief executive officer of AISA. The Director shall be a member and Chair of the Board.

5.1. Eligibility:

To be eligible for employment and to continue in employment as Director or Assistant Director, a person must have experience in transmission operations or scheduling, must have managerial experience, and shall be subject to the application of the disqualification criteria stated below.

- 5.1.1. Except as otherwise stated in Sections 5.1.2 through 5.1.4, a candidate will be disqualified if within fifteen (15) days before the date of employment (i) the candidate, or any related person to the candidate, or (ii) an entity, or an Affiliate of any entity, to which the candidate, or any related person is connected as an owner, director, trustee, commissioner, officer, partner, principal, representative, consultant, contractor, agent or in any similar capacity:
 - 5.1.1.1. Is a member of the AISA; or
 - 5.1.1.2. Receives any amount in any calendar year from the AISA, or from any Member of the AISA Transmission Provider class or any Affiliate of any such Member or any Member public utility, Member power seller or Affiliate thereof, as rent or payments for materials, products or services, other than services performed as the Director or Assistant Director of the AISA.

For purpose of this Section 5.1.1, "related person" shall mean a person who is a spouse, or minor child of the candidate.

- 5.1.2. A candidate for Director or Assistant Director will not be disqualified for owning shares in a mutual fund, other than a mutual fund for the utility sector, because the mutual fund owns interest in a Member or an Affiliate of a Member.
- 5.1.3. The qualification standards described in Section 5.1.1 above will not apply to disqualify an employee of an accredited college, university, or comparable academic institution, if the disqualification is due to the fact of such employment.
- 5.1.4. The qualification standards described in Section 5.1.1 above will not apply to disqualify a candidate who is receiving payments from a pension plan of a Member or Affiliate in a form other than securities of the Member or Affiliate and the pension plan payments bear no relationship to the economic performance of the Member or Affiliate.

5.2. Employment:

The Director and Assistant Director shall be employed by the Board and shall serve at the Board's pleasure. Any contract of employment with the Director or Assistant Director shall permit the Board to dismiss the Director or Assistant Director with or without cause.

5.3. Duties:

The Director, and in his/her absence the Assistant Director, shall be responsible for execution of the polices and direction of the Board and for the day to day operations of AISA. Subject to the Board's directions, the Director and Assistant Director shall have the following duties, among others:

- 5.3.1. Prepare, file with FERC, and implement contracts with transmitting utility Members and scheduling coordinators, and a tariff with users of the Interconnected Transmission System.
- 5.3.2. Participate in (i) operating studies used to determine TTC, (ii) coordination of transmission maintenance schedules, (iii) control area operators' determination of TTC, and (iv) determination of committed uses on the Interconnected Transmission System;
- 5.3.3. Develop with interested representatives of the Member Classes the Protocols Manual for the approval of the Board;
- 5.3.4. Calculate ATC;
- 5.3.5. Operate an over-arching, state-wide OASIS on which all ATC, ancillary services, and secondary transmission are posted and all transmission reservation requests are received;
- 5.3.6. Receive transmission reservation requests and energy schedules concurrently with receipt by the CAOs;
- 5.3.7. Update ATC after receipt of accepted transmission and confirmed energy schedules;
- 5.3.8. Monitor releases of ATC to ensure compliance with the Protocols Manual;
- **5.3.9.** Implement the dispute resolution procedures provided in Section 6 as appropriate;
- 5.3.10. Provide oversight regarding the implementation of the Protocols Manual; and
- 5.3.11. Perform administrative duties, such as preparing annual budgets for the approval of the Board, hiring/firing personnel, ensuring conformance with regulatory requirements.

The Director shall preside at all Board meetings and shall be available for all Board committee meetings, as provided in Section 4.5.1. If the Director is unable or fails to perform the duties of the office or exercise the rights, for any reason, the Assistant Director will perform the duties and exercise the rights, except the duties of serving or voting on the Board.

6. Alternative Dispute Resolution:

There shall be two separate alternative dispute resolution (ADR) procedures—(i) a fast-track arbitration procedure to resolve real-time issues and (ii) a more typical mediation and/or arbitration procedure to resolve disputes that are more complex, require legal research on questions of law, and/or more time to prepare, including the use of witnesses and development of physical evidence to establish contentions of facts.

6.1. Fast-Track ADR:

The Director or the Assistant Director shall make immediate decisions, based on the Protocols Manual with respect to disputes between transmission providers and transmission users concerning the next-day schedule when such disputes involve a determination of TTC, ATC, committed uses, or other similar next-day disputes. If the decision of the Director or Assistant Director is disputed, the decision will be referred to the fast-track ADR process by the Director or Assistant Director. A panel of 3 arbitrators shall be available at the call of the Director or Assistant Director for a decision on the next business day--one panel member and an alternate from the transmitting utility and one and an alternate from the transmission user involved in the dispute, all of whom shall have been designated at the time they become Members. The third member shall be selected by the Director or Assistant Director on a rotating basis from an independent standing panel of transmission experts, all of whom shall meet the disqualification criteria contained in Section 5.1.1. The fast-track ADR panel's decision shall stand pending an appeal, which must be taken, if at all, within thirty (30) days after the date of the decision either to the courts or FERC, whichever is appropriate. A final decision of the panel, the court, or FERC shall establish a precedent to guide future decisions of the Director, Assistant Director, and future fast-track panels.

6.2. Alternative Dispute Resolution Procedures:

For more complicated disputes requiring additional time to prepare legal positions and proof of facts or use of witnesses and documentary evidence, the Director or Assistant Director shall cause the following ADR procedures to be initiated in lieu of the fast-track ADR process:

6.2.1. Peer Review or Mediation:

6.2.1.1 Both disputing Parties may jointly submit a written request for peer review or mediation, including a written description of the matter under dispute, to the AISA. The Director or Assistant Director shall notify all named Parties of the matter under dispute within five working days after receipt of the request.

- 6.2.1.2 Within ten (10) working days of the receipt of the request, the Director or Assistant Director shall appoint one (1) or more persons selected from the list maintained by the AISA to act as facilitators to provide peer review or mediation. If the disputing Parties do not agree whether to follow a peer review or mediation process, the Director or Assistant Director shall select the appropriate process.
- 6.2.1.3 Generally, a mediation process will be followed for disputes regarding non-fast-track ADR. The Director or Assistant Director shall appoint one or more facilitators from SWRTA's list of qualified individuals who have received mediation training, or, if mutually requested by the disputing Parties, a professional mediator outside of SWRTA, to facilitate a resolution of the issue by the disputing Parties.
- 6.2.1.4 The facilitator(s) appointmented pursuant to Section 6.2.1.2 hereof shall serve on an ad hoc basis to aid the disputing Parties in reaching a mutually acceptable resolution of the dispute. The facilitator(s) shall have no authority to impose a resolution upon the disputing Parties.
- 6.2.1.5 Within ten (10) working days of the appointment by the AISA, the facilitator(s) and disputing Parties shall meet and attempt to negotiate a resolution of the dispute, following a timetable set out by the facilitator. The cost of the peer review or mediation, including the facilitator's reasonable fees and expenses, shall be borne equally by the disputing Parties.
- 6.2.1.6 Settlement positions taken by the disputing Parties during the course of the negotiations under this Section 6.2 shall be maintained as confidential to the extent permitted by law and shall not be introduced as evidence by an opposing Party in any subsequent arbitration, FERC proceeding, or litigation concerning the same or related dispute.

- 6.2.1.7 If all issues involved in the dispute are not resolved pursuant to this Section 6.2 within sixty (60) calendar days, or other mutually agreed-to period, after appointment of the facilitator, then any unresolved issues will be resolved as follows: (i) upon mutual agreement, the disputing Parties will follow the arbitration process set forth in Section 6.3 hereof; or (ii) the complaining Party shall file the dispute with FERC under the FPA for resolution. Except as provided in Section 6.1, the provisions of this Section 6.2 are conditions precedent to all other methods of dispute resolution available to Parties, including arbitration and the submission of the dispute to FERC, and, subject to the provisions of Section 6.1, the provisions of this Section 6.2 shall be the exclusive means of dispute resolution available to Parties until such means are exhausted according to their terms.
- 6.2.1.8 The facilitator shall report the outcome of the peer review or mediation process to the AISA, who shall then notify the affected Parties.

6.3. Arbitration:

- 6.3.1. Within thirty (30) days of the disputing Parties' mutual agreement to elect arbitration, each disputing Party shall submit a statement in writing to the other disputing Party and the AISA, which statement shall set forth in adequate detail the nature of the dispute, the issues to be arbitrated, and the remedy sought through such arbitration proceedings.
- 6.3.2. Within ten (10) working days following the submission of their statements, authorized representatives of the disputing Parties shall meet for the purpose of selecting an Arbitrator.
- 6.3.3. Arbitration shall be conducted by a qualified Arbitrator selected from the list maintained by the AISA. If the disputing Parties cannot agree upon an Arbitrator, each disputing Party shall take turns striking names from a list of ten (10) qualified individuals selected by the AISA from its list, with one of the disputing Parties, chosen by lot, first striking a name. The last-remaining name not stricken shall be designated as the Arbitrator. If that individual is unable, unwilling or ineligible to serve, the individual last stricken from the list shall be designated and the process repeated until an individual is selected who is eligible and willing to serve. No person shall be eligible for appointment as an Arbitrator who meets the disqualification criteria established in Section 5.1.1, and any individual designated as a potential Arbitrator who is ineligible to serve pursuant to those criteria shall disclose the circumstances affecting his or her impartiality and shall disqualify himself or herself from serving as Arbitrator.

- 6.3.4. The Arbitrator shall establish procedures for discovery and intervention, how evidence shall be taken, what written submittals may be made, and other such procedural matters, taking into account the complexity of the issues involved, the extent to which factual matters are disputed and the extent to which the credibility of witnesses is relevant to a resolution. Such procedures shall ensure that the Arbitrator (i) allows for adequate discovery of the facts, (ii) takes testimony under oath, (iii) transcribes and keeps testimony, (iv) maintains a docket that identifies each document received, and (v) maintains a file of the documents.
- 6.3.5. The Arbitrator shall set a timetable for the arbitration, including setting the date, time and place of each hearing. The Arbitrator shall accept relevant and material evidence and hear testimony presented by the disputing Parties and may request additional information and testimony. Such additional information shall be furnished by the Party or Parties and may be requested from other entities having such information. Other interested entities may move to intervene and request in writing that the Arbitrator consider additional information, and the Arbitrator shall decide whether to permit such intervention and whether to consider such additional information.
- 6.3.6. Not later than thirty (30) days after the date of close of hearings, each disputing Party shall submit its proposed remedy to the Arbitrator. Not later than thirty (30) days after receipt of the disputing Parties' proposed remedies, the Arbitrator shall determine which proposal best meets the terms and intent of AISA's Bylaws, the protocols manual, and conforms with the FPA and FERC's published decisions, policies, and regulations, and shall state his or her decision in writing. The disputing Parties will agree to be bound by the Arbitrator's decision, subject to and during any appeal. The Arbitrator's decision may be deemed to be precedential in any other arbitration where deemed appropriate by the arbitrator.
- 6.3.7. Immediately upon their receipt of the written decision of the Arbitrator, the disputing Parties shall take whatever action is required to comply with the decision. To the extent the decision requires local, state, or federal approval, regulatory action, or a FERC filing by a Party, the affected Party(ies) shall submit and fully support that portion of the decision before the appropriate regulatory authority. Each disputing Party shall bear its own attorneys' fees associated with the arbitration. All other verifiable costs and expenses associated with the arbitration, including required travel and other expenses of the Arbitrator and witness costs and costs of proof incurred at the request of the Arbitrator, shall be borne by the losing Party(ies).

6.4. Review:

- 6.4.1. Any arbitration decision issued pursuant to AISA's Tariff that affects matters subject to the jurisdiction of FERC under the Federal Power Act shall be filed with FERC.
- 6.4.2. On the basis of a protest by an affected state agency or on FERC's own motion, FERC may investigate any arbitration decision made under AISA's Bylaws with respect to matters within its jurisdiction, and after giving substantial deference to such decision, may set it aside if the decision is determined to be inconsistent with the basis upon which the Bylaws were approved by FERC or applicable federal law or regulation. A disputing Party may initiate a proceeding at FERC regarding the arbitration process or decision only (i) if the arbitration process does not result in a decision within a reasonable period of time, or (ii) on the grounds specified in Sections 10 and 11 of Title 9, United States Code, for judicial vacation or modification of an arbitration award.

6.5. Disputes Involving Government Agencies:

If a party to a dispute is a Federal agency, the procedures herein which provide for the resolution of claims and arbitration of disputes are subject to any limitations imposed on the agency by law, including but not limited to the authority of the agency to effect a remedy. With respect to such Federal Agencies, the procedures in this Section 6 shall not apply to disputes involving issues arising under the United States Constitution.

7. Indemnity, Insurance, and Releases:

- 7.2. In order to induce qualified persons to serve AISA as directors and officers, AISA will indemnify such persons to the fullest extent permitted by law or by the Articles, if applicable. Insofar as applicable law requires a determination as to the standard of conduct followed by a person seeking indemnification, the Board or the disinterested members thereof will consider the relevant facts, or cause them to be submitted for consideration, as soon as practicable, but such consideration of any facts in issue in pending legal proceedings will not be required before the final adjudication thereof. A determination, whether favorable or adverse to the party seeking indemnification, pursuant to any such consideration (which determination, if the same is to be made by a court pursuant to law, will be deemed made when contained in a final unappealed or unappealable decision) will be binding on all parties concerned.
- 7.3. In order to protect itself and its employees from liability to third parties with whom it has no agreements or tariff, the AISA will obtain liability and personal injury insurance and Directors' and Officers' protection in appropriate amounts.

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7.4. The remedies for non-performance established in Sections 3.2.2, 3.6, and 6 shall be the sole and exclusive remedies available under these By-laws for any nonperformance of obligations under these By-laws. Subject to any applicable state or Federal law which may specifically limit a Member's ability to limit its liability, no Member, its directors, members of its governing body, officers or employees, nor AISA, its directors, officers, or employees shall be liable to any other Member or to AISA for any loss or damage to property, loss of earnings or revenues, personal injury, or any other direct, indirect, or consequential damages or injury which may occur or result from the performance or nonperformance of these By-laws, including any negligent act or omission arising hereunder.

SCHEDULE ADMINISTRATION AGREEMENT

1. Parties:

The Parties to this Schedule Administration Agreement are the ARIZONA INDEPENDENT SCHEDULING ADMINISTRATOR ASSOCIATION, an Arizona non-profit corporation, and ARIZONA PUBLIC SERVICE COMPANY, an Arizona public service corporation, ARIZONA ELECTRIC POWER COOPERATIVE, an Arizona power cooperative, CITIZENS UTILITIES COMPANY, an Arizona public service corporation, and TUCSON ELECTRIC POWER COMPANY, an Arizona public service corporation.

2. Recitals:

- 2.1. The ACC's regulation R14-2-1610.C. recognizes that an independent scheduling administrator is "necessary in order to provide non-discriminatory retail access and to facilitate a robust and efficient electricity market" within the State of Arizona when retail electric competition begins on January 1, 1999;
- 2.2. AISA was formed to facilitate the operation of Arizona's competitive electric retail market until a regional independent system operator, currently known as Desert STAR, becomes operational; and
- 2.3. The Parties desire to provide in this Agreement terms for the repayment of Startup Loans, to define the duties to be performed and the procedures to be followed by the CAOs and AISA in order that AISA may fulfill its mission.

3. Definitions:

- 3.1. ACC: Arizona Corporation Commission.
- 3.2. Agreement: This Scheduling Administration Agreement.
- 3.3. AISA: The Arizona Independent Scheduling Administrator Association.
- 3.4. AEPCO: Arizona Electric Power Cooperative.
- 3.5. APS: Arizona Public Service Company.
- 3.6. Assistant Director: The chief operating officer of AISA.
- 3.7. ATC: Available Transmission Capability.
- 3.8. CAOs: The Control Area Operators.

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- 3.9. Committed Uses: Generally, the amount of transmission capacity that is unavailable for sale to the marketplace due to reservations for native load uses; prudent reserves; existing contract commitments for power purchases; exchanges, and sales; existing contract commitments for transmission service; other pending potential uses of transfer capability; and a transmission reliability margin.
- 3.10. Control Area Operators: APS, AEPCO, and TEP.
- 3.11. CUC: Citizens Utilities Company.
- 3.12. Desert STAR: The planned independent system operator of the transmission grid located in the Southwest.
- 3.13. Director: The chief executive officer of AISA.
- 3.14. FERC: The Federal Energy Regulatory Commission.
- 3.15. Interconnected Transmission System: That portion of each CAO's transmission system utilized for bulk power transactions within the State of Arizona, generally at voltages of 115kV and higher.
- 3.16. Protocols Manual: A manual prepared by AISA, which provides precision to the calculation of TTC, committed uses, and ATC, to reservation procedures, and to the determination of priorities for the use of constrained paths on the Interconnected Transmission System.
- 3.17. OASIS: Open Access Same-Time Information System.
- 3.18. SCs: Scheduling Coordinators.
- 3.19. Start-Up Loans: The loans heretofore made to AISA by the CAOs, except Western DSR, to cover AISA's start-up costs. The amounts of such loans and the dates they were made are as follows:

| 3.19.1. APS | \$000 | , 1998 |
|--------------------|-------|--------|
| 3.19.2. AEPCO | \$000 | , 1998 |
| 3.19.3. CUC | \$000 | , 1998 |
| 3.19.4. TEP | \$000 | , 1998 |

- 3.20. SWRTA: The Southwest Regional Transmission Association.
- **3.21. TEP**: Tucson Electric Power Company.
- **3.22.** TTC: Total Transmission Capability.

4. Effective Date and Term:

This Agreement shall become effective when accepted by FERC without change or on January 1, 1999, whichever is later, and shall terminate when Desert STAR becomes operational and assumes the duties of AISA or the date AISA terminates pursuant to it Articles of Incorporation, whichever is earlier.

5. Repayment of Start-up Loans:

AISA shall repay it Start-up Loans in two annual installments on or before December 31, 1999 and December 31, 2000, together with interest computed on the unpaid balance from the date of the loan until the date of payment at the following interest rates:

| 5.1. | APS: | % |
|------|--------|---|
| 5.2. | AEPCO: | % |
| 5.3. | CUC | % |
| 5.4. | TEP: | % |

[An alternative might be to use a common interest rate based either on the refund rate formula of either FERC or the ACC.]

6. Duties of CAOs:

- 6.1. Day Ahead Market: The CAOs shall be responsible for:
 - **6.1.1.** Complying with the Protocols Manual.
 - 6.1.2. Cooperating with AISA and its vendors and contractors in establishing and operating an over-arching OASIS for the State of Arizona.
 - 6.1.3. Processing and reviewing SCs' schedules, submit existing contract schedules to AISA, and submit generation participants schedules to AISA.
 - 6.1.4. Posting ancillary services to AISA's OASIS.
 - 6.1.5. Processing additional schedules from transmission reservations updates.
- 6.2. Current Day Market: CAOs shall be responsible for:
 - **6.2.1.** Managing real-time operations and assisting in implementing SCs' curtailment and contingency directives.
 - 6.2.2. Processing current-day schedules from SCs/AISA reservation additions and updates, including verifying ancillary services needed for new or updated requests, and receiving and implementing AISA/Security

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Coordinator's congestion protocols to accommodate current-day schedules.

- **6.2.3.** Approving or rejecting the schedule based on current system dynamics.
- **6.2.4.** Implementing real-time congestion management protocols.
- 6.2.5. Notifying SCs/AISA of status of ongoing requests and actions.

6.3. Additional Duties:

- 6.3.1. Each month, the CAOs shall also bill, collect, and remit to AISA the rate or charge contained in AISA's tariff, which shall have been filed and accepted by FERC.
- 6.3.2. Billing and collecting from SCs and remit to AISA charges under AISA's Tariff covering the repayment of Start-up Loans, personnel and insurance costs, and costs of owning, operating and maintaining AISA's facilities.

7. Duties of AISA:

- 7.1. Day Ahead Market: AISA shall be responsible for:
 - 7.1.1. Implementing and complying with the Protocols Manual.
 - 7.1.2. Calculating ATC (implementing the Western Interconnection ATC document and ISA Committed Users Work Group document).
 - 7.1.3. Receiving from scheduling coordinators and transmission providers transmission reservations, energy schedules, and updates of ATC after receipt of confirmed transmission reservations.
 - 7.1.4. Monitoring releases of ATC to ensure compliance with the Protocols Manual.
 - 7.1.5. Initiating appropriate dispute resolution procedures when requested by a CAO, SC, or transmission user for disputed scheduling and curtailment decisions.
 - 7.1.6. Provide oversight regarding the implementation of the Protocols Manual
- 7.2. Current Day Market: AISA shall be responsible for:
 - 7.2.1. Verifying that additional requests for transmission are viable, based on available ATC.
 - **7.2.2.** Posting to the OASIS all curtailment information.
 - 7.2.3. Reviewing posted curtailment information.

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- 7.2.4. Initiating appropriate dispute resolution procedures when requested by a CAO, SC, or transmission user for disputed scheduling and curtailment decisions.
- 7.2.5. Implementing facilities congestion protocols to accommodate current day schedules.
- 7.2.6. Ensuring that application of scheduling protocols are not unduly discriminatory.

7.3. Additional Duties: AISA shall participate in:

- 7.3.1. Operating studies used to determine TTC.
- 7.3.2. The determination of transmission maintenance schedules.
- 7.3.3. The CAOs' determination of TTC.
- 7.3.4. Developing with interested representatives of the Member Classes the Protocols Manual.
- 7.3.5. Participate in the settlement process and facilitate the disputes resolution procedures required to resolve settlement issues.
- 7.3.6. Operate an over-arching, state-wide OASIS.

8. AISA Tariff:

AISA shall prepare and file with FERC a tariff covering the services it will provide and the rate it will charge to SCs and users of the Interconnected Transmission System. AISA shall use its best efforts to have its tariff accepted by FERC and in place by January 1, 1999.

9. Dispute Resolution Procedures:

The Parties hereby adopt, incorporate herein, and agree to abide by the dispute resolution provisions contained in Section 6 of the By-laws of AISA

10. Amendments:

This Agreement may be modified: (1) by mutual agreement of the Parties, subject to approval by FERC; (2) through the Dispute Resolution Procedures set forth in Section 9; or (3) upon issuance of an order by FERC.

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11. Counterparts:

This Agreement may be executed in one or more counterparts, which may be executed at different times. Each counterpart shall constitute an original but all such counterparts together shall constitute one and the same instrument.

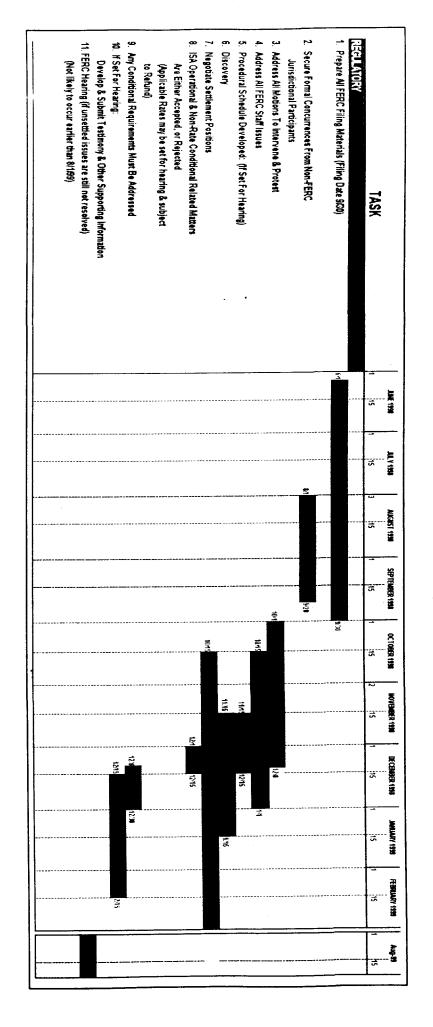
12. Signature Clause:

| ARIZONA INDEPENDENT SCHEDULING |
|------------------------------------|
| ADMINISTRATOR ASSOCIATION |
| Ву |
| Its |
| ARIZONA PUBLIC SERVICE COMPANY |
| By |
| Its |
| ARIZONA ELECTRIC POWER COOPERATIVE |
| Ву |
| Its |
| CITIZENS UTILITIES COMPANY |
| Ву |
| Its |
| TUCSON ELECTRIC POWER COMPANY |
| By |
| Its |

ISA Cost and Funding Allocation Proposal

| | _ | | | | Capital (\$ | () | O/M (\$k) |
|------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------------|--------------------------|-----------------------------|-----------------------------------|
| l. | Cost | | | | | | |
| | Α. | Software/Hardware for OASIS | | | 200 | | |
| | В. | Software/Hardware Maintenance | | | | | 50 |
| | C. | Building/Office Equipment | | | | | |
| | | 1. Building Space – 2000sq. | . ft. | | | | 48 |
| | | @ 24.00 sq. ft./year | | | | | |
| | | Office Space/Elect/Phone | e/Data @ | | 50 | | |
| | | \$5,000/cubicle | | | | | |
| | | 3. Office Equipment @ \$2,5 | 500/person | | 25 | | |
| | D. | Personnel *1.70 for loads (\$1,020k) |) | | | | |
| | | 1. 1 - Director @ \$125,000/ | yr. | | | | 213 |
| | | 2. 1 – Assistant Director @ | \$80,000/yr. | • | | | 136 |
| | | 3. 1 – Engineer/Contract Sp | ecialist | | | | 110 |
| | | @ \$65,000/yr | | | | | |
| | | 4. 6 – Analysts @ 3 - \$45,00 | 00 - 3 - \$55 | 5,000 | | | 510 |
| | | 5. Administrative Support | | | | | 51 |
| | E. | Loan Amortization | | | | | 900 |
| | F. | Insurance | | | | | 280 |
| | G. | Professional Service | | | | | |
| | | 1. Startup | | | 700 | | |
| | | 2. Annual | | | | | 250 |
| | H. | Working Capital | | | 500 | | |
| | 1. | TOTALS | | | 1,475 | | 2,548 |
| II. | Rate f | for access to transmission | | | | | \$0.074/mwh |
| III. | A. Ti B. 19 C. P | ing Allocation (\$k) ransmission Holder within Arizona 996 Demand Peak (per WSCC) ercent of Total Peak rapital Cost Allocation (\$k) | AEPCO 464 6.97 103 | APSC 4342 65.22 962 | CUC 232 3.50 52 | TEP 1619 24.31 358 | TOTAL 6,657 100.00 1,475 |

Timeline



Contingency Plan

Contingency Plans for the following situations are as follows:

1. Failure of Incorporation of the ISA:

If the ISA fails to incorporate by 1/1/99, the affected utilities will provide transmission service for retail direct access customers under the Network Integration Transmission Service of the Open Access Tariffs that all affected utilities have on file with FERC. Affected utilities compliance with FERC Orders 888, 889, and the existing OASIS sites will result in non-discriminatory transmission access for retail direct access customers.

2. Failure to Obtain and/or Train Personnel:

If the ISA is incorporated but fails to obtain personnel or personnel are not sufficiently trained to go into operation by 1/1/99; in addition to the provisions in (1.) above, the affected utilities operations can be audited by a ISA Board directed process.

3. Failure to Implement Technology:

If the ISA is staffed with trained personnel but the technology is not implemented by 1/1/99, the staff can monitor activities on the existing OASIS sites via PC's. Provisions of (1.) and (2.) above would also apply.

SIGNATURES:

| Bv [.] | CB Ciesi Cary Deise |
|-----------------|--------------------------------------|
| | Cary Deise |
| | rector, Transmission Planning & Ops. |
| Date: _ | 9/1/98 |
| | IZONA ELECTRIC POWER COOP. |
| By: | Man Duff |
| Title: | Larry Huff Assistant General Manager |
| Date: _ | 9/1/98 |
| By: | CITIZENS UTILITIES COMPANY |
| | |
| Title: | |
| Date: | |
| | TUCSON POWER COMPANY |
| By: | Dennis R. Nelson |
| Title: | Vice President & General Counsel |
| Date: | |

ARIZONA PUBLIC SERVICE

ARIZONA PUBLIC SERVICE

| By: | |
|-------|--------------------------------------------------------------------------------------|
| - | Cary Deise Director, Transmission Planning & Ops. |
| | - |
| Dat | e: |
| | ARIZONA ELECTRIC POWER COOP. |
| By: | |
| | Larry Huff Assistant General Manager |
| Date | e: |
| Title | CITIZENS UTILITIES COMPANY Daniel J. McCarthy e: Vice President & Arizona Energy e: |
| _ | TUCSON POWER COMPANY |
| By: | Dennis R. Nelson |
| Title | |
| Dat | e [.] |

SIGNATURES:

ARIZONA PUBLIC SERVICE

| By: | |
|--------|--------------------------------------------------|
| | Cary Deise irector, Transmission Planning & Ops. |
| Date: | |
| AF | RIZONA ELECTRIC POWER COOP. |
| By: | Lawrence Huff Assistant General Manager |
| Date: | |
| | CITIZENS UTILITIES COMPANY |
| By: | |
| Title: | |
| Date: | |
| | TUCSON POWER COMPANY |
| By: | Dennis R. Nelson |
| Title: | Vice President & General Counsel |
| Date: | August 28, 1998 |